

CACTUS AND SUCCULENT JOURNAL

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FIG. 3. *Agave cernua* Berger. Photographed in Santa Barbara, California, by Wm. Otte.



CACTUS AND SUCCULENT JOURNAL

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40 PAGE BOOK FREE

The March JOURNAL will contain, as an insert, a 40-page picture book of cacti and succulents. This book was produced by Hummel's Exotic Gardens to stimulate interest and is being sent to all Society Members with their compliments. Among the pictures are 148 named cacti and succulents which are considered the finest of the commercial plants and are photographed in a size that you would recognize. Be sure that your JOURNAL has not expired.

WASHINGTON CACTUS AND SUCCULENT SOCIETY

The first Year Book received by the JOURNAL is that of the affiliated Washington group. The mimeographed booklet lists the officers and the committee chairmen besides the list of meetings.

Their two monthly features are: Ten words and their pronunciation and a review of the classification of families of the cactaceae following Borg's Outline. Among the scheduled monthly meetings the following topics sound especially interesting: Cacti that will bloom in Puget Sound, Catalogs used as reference, Cultivation of cacti in the home, Practical botany, Epiphyllums, History of my hobby, Stapelias, Personal experiences with glasshouses, and Travelog with moving pictures.

Notes on Haworthias

By J. R. BROWN

Haworthia Blackburniae, Barker in Journ. So. Afr. Bot. III (1937) 93, fig. 1 and pl. 14; Poelln. in Kakt. u. andere Sukk. (1938) 37, photo.

Plant with a simple, short stem about 1 cm. in diam. covered by the old withered leaf bases.

Roots fusiform and about 12 mm. in diam. at the centre.

Leaves at first 4-6, more or less distichous, later on increasing to 10 and becoming multifarious, linear, with an acute tip, erect or spreading, leathery, smooth, green, reddish towards the base, to 15 cm. long, 5 mm. wide and 1 mm. thick, face of leaves channelled, the cartilaginous margins minutely toothed and sometimes inflexed, back of leaves rounded.

Peduncle simple, slender, 12 cm. or more long, the sterile bracts ovate, acute, 5 mm. long and 3 mm. wide; raceme 8-10 cm. long, flowers about 15, spreading, the erect pedicels 3 mm. long, the bracts ovate, acute, 5 mm. long, perianth about 15 mm. long, white, the tube lightly curved, the recurved segments with a greenish keel.

Locality: Oudtshoorn Div. "growing singly in stony ground on a hill about 8 miles from Calitzdorp in quite exposed positions."

Named after Mrs. H. Blackburn who discovered this plant in 1935.

This *Haworthia* is very interesting on account of the thin leathery leaves and the fusiform roots and a new sect. was erected to receive it, *Fusififormes* Poelln. (*Fusiformae* Barker), as it is quite distinct from any other, at present known, *Haworthia*.

A photo of this *Haworthia* is shown, but due to the adhering soil particles, the roots are somewhat obscured in their outlines, however one root in the centre may be distinctly seen, with new root growth below, where this fusiform root had been injured or had died back. This photo was taken one year after the plants were received from So. Africa and in this short period of time the roots had not fully recovered their normal size and shape.

It flowers in So. California during the months of March and April.

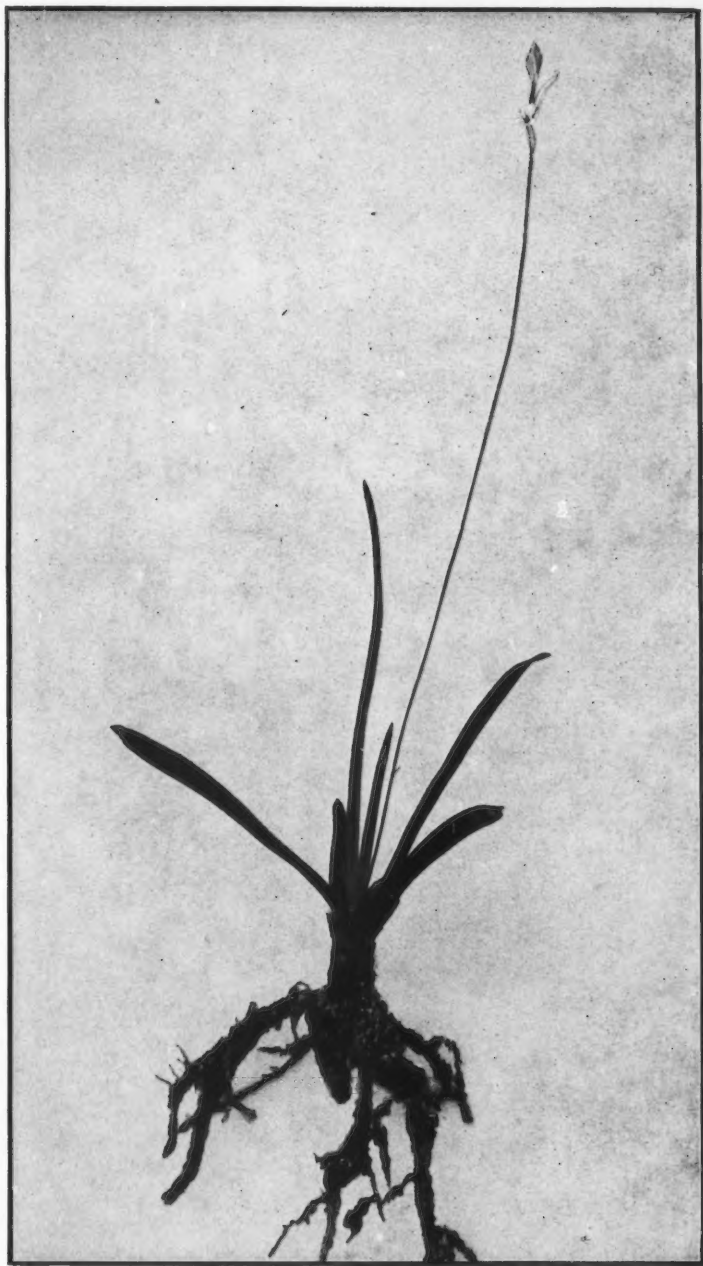
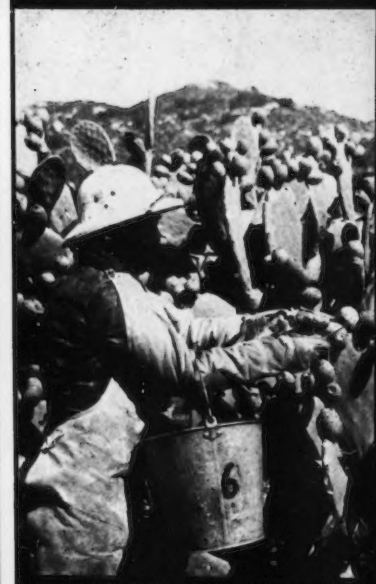


FIG. 4. *Haworthia Blackburniae* Barker approx. $\times 0.5$

In a letter to me, Mrs. Blackburn mentions that, "*Haworthia Blackburniae* grows on the same hill as *Haworthia truncata* var. *crassa* 8

miles S. W. of Calitzdorp. Plants form clumps and grow in between stones all along the hillside."



Cactus Ranch

PRODUCES 20,000 BOXES OF CACTUS PEARS

By GEORGE LINDSAY

If the subject of the cactus business in California were mentioned one would probably think of nurseries raising thousands of jewel-like seedlings in modern greenhouses, or importing rare botanical curiosities from distant deserts, these to be introduced to the horticultural world, particularly to xerophyte collectors. I have recently become acquainted with another, perhaps equally important cactus industry.

Spread over a hillside bordering the San Diego River valley near Lakeside is the Maniscalco Cactus Ranch. Here, lined in neat rows, are thousands of plants, horticultural improvements of *Opuntia ficus-indica*, which are raised to produce prickly pear fruit! In late summer and fall the "Cactus Ranch," as it is known locally, is teeming with activity, as the tremendous crop of perishable prickly pears are harvested, packed, and shipped to the eastern markets.

A note from the Editor, reminding me that I had promised to "write up" the Cactus Ranch for the JOURNAL, prompted me to call Mr. Maniscalco, who assured me the harvest was just beginning. Armed with a camera I visited the ranch, to acquaint myself with this business.

The Opuntias are planted in long rows, for easy cultivation and care, as would be any sort of fruit orchard. In late August, the fruit which lines the edges of the pads, begins to ripen and the harvest season is on. Picking is done by a crew of Mexicans who are skilled in judging the exact ripeness of the "tunas" as they call them, for they must be picked at a very definite time, just as the color is breaking through. If picked too green the fruit will not mature properly in transit and would be insipid in taste, while if too ripe it would become over-ripe and spoil before reaching the consumer. The pickers go over the acreage, one man to each row, picking the ripe fruit by cutting out a small section of the pad where it is attached. This prevents fungus spores from entering the fruit through a fresh cut. They are picked in buckets, and sorted for size in the field, placed in boxes and trucked to the packing house.

Of course the plants, while normally "spineless," bear glochids, as do the tunas themselves.

For protection the pickers wear heavy leather gloves with long canvas sleeves reaching to their shoulders and fastened there, long canvas aprons, and leather leggings or boots. The plants grow quite tall and much of the picking is done from ladders.

At the packing house ten girls efficiently wrap each fruit and pack them into flat wooden shipping boxes, each of which holds about twenty pounds. The boxes are marked as to size of fruit, as they hold sixty large tunas or seventy small ones. Two types are packed—a deep blood-red variety and a yellow variety, and each box is stamped as to the type it contains. The packers, too, must be protected from the glochids, and wear rubber gloves, canvas or oil cloth sleeves, rubber or oil cloth aprons, and wrap paper about their ankles to keep any stray glochids from sifting into their shoes. Perhaps the most necessary part of their equipment is a pair of tweezers, hanging from a string about each packer's neck, which, in spite of the listed precautions, often has to be used!

The ten girls pack over a thousand boxes a day. As soon as they are packed they are trucked to the railroad, placed in iced cars and shipped to the auction market in New York. There the prickly pears are sold in the usual manner, and the cars are split among wholesalers who may come from other eastern cities to buy. Italians are the greatest ultimate consumers, having brought their taste for prickly pears from the shores of the Mediterranean, and it is in the Italian districts that most of the fruit is sold. Much is retailed from push-carts at five cents or three for a dime. Prickly pears are generally eaten "out of hand," though they may be used in salads. To prepare them the tips of the fruit are cut off and the rind split lengthwise and peeled off, thus carrying away the glochids. I was advised that the hand in which the flesh of the fruit is held should never be used to peel the rind off, because of the danger of thus transferring glochids into one's mouth. The pulp is full of seeds, but these are eaten with no harmful effects.

Mr. Maniscalco started his cactus business

FIG. 5. Photos by George Lindsay show: 1. A birds eye view of the ranch. 2. Picking prickly pears from a ladder. 3. Note the protective clothing worn because of the glochids. The white spots on the edges of the pads are where the fruit has been picked. A small piece of the pad is cut away with each tuna. 4. Opuntias are raised in long rows. This planting is about six years old. 5. Packer at work. 6. Packers in packing house. Fresh fruit is supplied from one side and packed boxes are carried away from the other. 7. Boxes of packed prickly pears ready for shipment. 8. Hauling packed fruit to train.

about 1922, and has gradually built up a healthy and substantial enterprise. For several years he rented a ranch planted to *Opuntias* by a dairyman who expected to use the plants as cow feed, which proved impractical. In 1929 he bought his present acreage and made his first planting with pads selected from heavy producing plants. Planting has been going on ever since, and there is now about thirty acres in cactus. Last season sixteen cars were shipped and the production of course increases every year. The business is now largely carried on by Mr. Maniscalco's sons, who are in the firm. To one who knew the prickly pear business only from seeing Mexicans carrying a few "tunas" strung on twine or in little woven baskets, to their market places, this efficient handling, packing, and marketing the fruit, was of especial interest.

Care and culture of the plants is fairly simple.

The ranch has deep, silty soil, ideal for prickly pears, as attested by the large smooth fruit and healthy plants. Scale makes it necessary to spray with lime and sulphur just after the crop is off, in late fall or early winter. The plants are irrigated three or four times a season, and are pruned from time to time. Commercial fertilizer is applied each season. One of the important jobs is thinning the fruit each spring. At the same time the larger spines are brushed from the green fruit.

Mr. Maniscalco told me that his is not the only cactus ranch, there being two others near San Jose and others in other parts of California. Some others have started but were unsuccessful, as the growers expected their "cactus" to grow in poor, sandy soil without irrigation—the same mistake growers of ornamental varieties have sometimes made!

OBSERVATIONS ON *ERIOCEREUS TEPHRACANTHUS* (Lab.) Riccobono

By WM. HERTRICH

Curator of Huntington Botanical Gardens

When grown out of doors in southern California, this plant becomes quite bushy, branching heavily at the base, attaining a height of 1 m. and over. In comparison with other related species, it grows very slowly. This is true, however, of many plants indigenous to high elevations. The average diameter of its stems, on mature growth, is about 6 cm., but it often attains twice this thickness near its base. In full sun the growth is a grayish green color, whereas in a shaded or semi-shaded location, it remains a dark, bluish green.

DESCRIPTION OF PLANT:

Ribs: generally 8, occasionally 7, rounded, about 1 cm. high and divided from each other by wavy, groove lines.

Areoles: from 2-2.5 cm. apart, and about 6 mm. in diameter; round in old growth and $\frac{3}{4}$ round in new growth, as the upper portion is flat and somewhat depressed into the rib. Covered with short, white felt which becomes dark gray in age.

Spines: young spines on terminal growth usually straw colored, with reddish brown bases and black tips. Spines on mature growth, light gray with black tips and on old growth all spines become dark gray. Generally 5 radial spines, occasionally 6 or 7, measuring 6-10 mm. in length, the 2 upper ones the shortest.

Only 1 central spine, as a rule, from 1.5 to 2 cm. long, in young growth set at right angles and in older growth, it often slants downward. An occasional areole, or sometimes a whole branch, may produce more than 1 central spine, in which case they are set at sharp angles and often reach 3 cm. in length. All spines are stout and stiff.

This species appears to be rather a shy bloomer in most sections of southern California and it takes a longer period for the fruit to mature, than on other closely related species. It requires almost four months for the fruit to attain its full development on the specimen under observation. It was pollinated August 26, 1942, and was not fully mature until December 22nd!

All flowers so far, on the plants under cultivation at the Huntington Botanical Gardens, were produced near the terminals of the stems. Flowers are nocturnal and truly magnificent and remain open until nine or even ten A. M. on foggy or cloudy mornings.

DESCRIPTION OF FLOWER:

Length over all, 18 cm.

Ovary: 2 cm. in diameter by 2 cm. long, dark green, glossy, thickly covered with bracts, 7 mm. long, set on elevated bases. Lower half of bracts green, thick, and fleshy; upper portion, straw colored, flexible tapering to a sharp

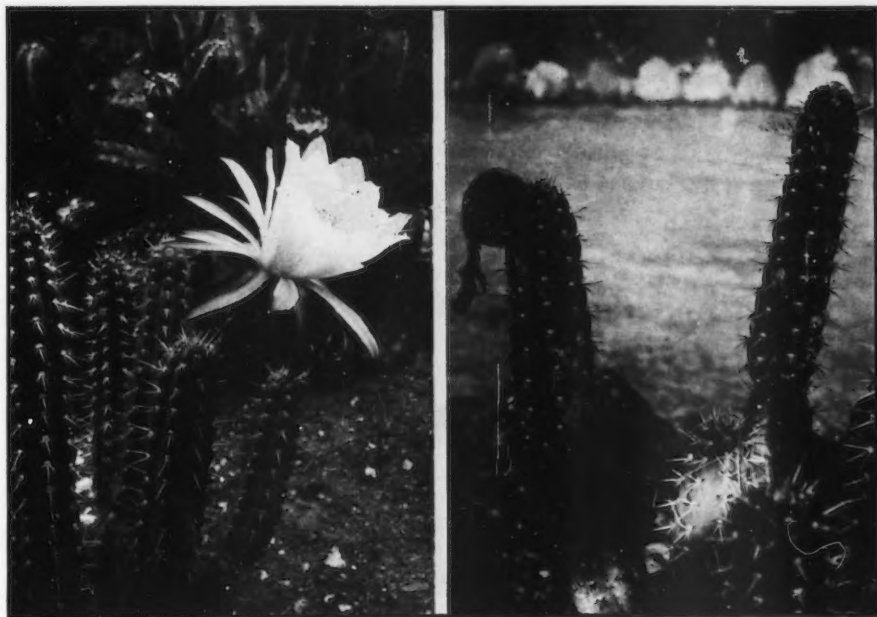


FIG. 6. LEFT: *Eriocereus tephracanthus* flowering in the Huntington Botanical Gardens August 26th. RIGHT: Fruit of same December 22nd.

point.

Tube: dark green, strongly ribbed, covered with reddish brown bracts which range in size from 8 mm. wide by 16 mm. long, to 1 cm. wide by 3 cm. long; all taper to a sharp point, longest ones near the top. All bracts on ovary and tube contain soft, white, silky wool in the axil. Length of wool increases toward the top of the tube.

Outside perianth segments: in sets of five—first set about 5 cm. long by about 1 cm. wide, tapering to long, sharp points; recurved, often twisted, brown. Next set of fives are green at base, shading into greenish brown above, about 7.5 cm. long by 1.2 cm. wide; also taper to long, sharp points and are slightly recurved and twisted. Third set, are 9 cm. long by 1.2 cm. wide, light green, with brownish terminals, some slightly recurved, tapering into sharp points. Fourth set are greenish white, with rose colored tips at terminals; 9.5 cm. long, 1.5 cm. wide, tapering to sharp points, slightly recurved.

Inside perianth segments: first set, white, with greenish white bases and rose colored tips; about 9.5 cm. long and 2.5 cm. wide, greatest width in upper third, tapering to a sharp point, margins smooth. Balance of inside perianth segments number 15, all white and

range from 8-10 cm. long and from 3-3.7 cm. wide in the upper third, from there tapering and ending in elongated points, margins smooth, undulated.

Nectar cavity: 2.5 cm. long.

Stamens: cover balance of tube and throat; range from 5 to 7 cm. long, rather short for the size of the flower, white, greenish at base.

Antthers: 2.5 to 3 mm. long, by 1.5 mm. wide, greenish gray.

Style: 12 cm. long, 2 mm. thick, green at top, fading towards the base.

Stigma lobes: 15, about 1.7 cm. long, cream colored, not exserted.

DESCRIPTION OF FRUIT: compressed-globular to oblate; 5.5 cm. by 4.5 cm.

Skin: dark green until mature when it changes to a dull brown. Splits open across blossom end when mature.

Stiff, gray colored bracts, 3-4 mm. long, attached to extremely broad horn colored elevated bases, cover the skin at regular intervals, and contain tufts of soft, gray wool in their axils, 5-10 mm. long.

Withered flowers are persistent.

Pulp: white, coarse, juicy.

Seed: brownish black, irregular shape; 2 mm. by 1.5 mm. roughened surface. Fruit contains a great number of seeds, actual count revealed one to have 1,654!



SPINE

CHATS

LADISLAV CUTAK



Nine years ago, this month, I was really in a tight spot. George H. Pring, Superintendent of the Missouri Botanical Garden and President of the St. Louis Horticultural Society, thought that I was ripe enough to give a talk before a garden club. He did not ask me whether I would lecture, but just took it for granted. Well sir, in those days I was a very bashful kid and to face an audience was like going to the execution block. However, I managed to give a good account of myself, but only because I realized that sooner or later I'd be expected to do this as a regular part of my work. It was part of a price I had to pay because I had chosen a horticultural career. Since that eventful February 2, 1934, I have faced audiences in various parts of the country and conquered stage fright. It is through these lectures, and the fact that I am associated with the Missouri Botanical Garden, that I have the privilege of meeting many fine and interesting cactus people. In this monthly column I shall endeavor to tell you about these friends, because you should get acquainted with them, too.

How many of you readers keep a scrapbook? Mrs. Glen G. Wickliff of Des Moines, Iowa, has a very interesting one. When I was called to the Iowa metropolis to dedicate the new indoor cactus garden in 1940 I got a chance to see it. I like to look at scrapbooks, because I have a number of them, too. She had all kinds of cactus postcards, cactus cartoons, cactus photos, newspaper clippings, everything and anything about cacti and succulents. There may be thousands of people who dislike our spiny plants, but even these often will sit up and take notice when a cactus picture or story gets into the daily news. The other day, while thumbing through my scrapbook, I noticed the following news-item, taken from the St. Louis Star-Times:

"STUNG WITH CACTUS, GETS DIVORCE"

"Cambridge, Mass., September 23, 1937. (U.P.)—The wife of Economics Instructor John B. Crane of Harvard University had an uncontested divorce today after testifying her husband once hurled a prickly cactus plant at her while she was bending over."

I had planned to illustrate my monthly SPINE CHATS with occasional pictures and cartoons, especially when I wanted to stress some particular point or to impart a humorous angle to some paragraph, like the one referring to the cactus-throwing husband, but Mr. Haselton informs me that he has been restricted in the making of cuts and so this feature will not be possible, at least for the duration.

Remember W. P. Reedy? If you attended the Convention two years ago, you certainly should know him. He's the bald-pated gentleman from the deep South, a right nice fellow to know. Recently I received a card from him, with this note appended: "How about letting me go through the Gardens with a truck when you're not looking?" Come on up, brother Reedy, but leave the truck behind.

The other day I received a most welcome letter from Mrs. Muriel Waterman, a pen friend of long stand-

ing. She lives in far-off New Zealand and if you read the CACTUS JOURNAL from cover to cover, as you should, I know that you have come across her name. Just to refresh your memory, turn back to the September, 1940, issue and, lo and behold, you will come face to face with this charming cactus enthusiast, pictured on page 148. Mrs. Waterman devotes a sixth of an acre to cacti and succulents and roughly possesses more than a thousand plants. Evidently she must have the largest collection on North Island. New Zealand climate must be ideal for desert plants, according to my correspondent, for she never fails to enumerate the abundance of flowers her plants produce.

With a husband in the war service and a daughter as a nurse, Mrs. Waterman now carries on her work alone. She mends fences, clips the hedges, cleans paths, grubs out weeds, milks the cow twice daily, raises chicks, does her housework, and still finds time to devote to her cacti. Yes sir, she is a real cactus enthusiast. However, she admits that in order to complete her daily chores, she must get up at 4:45 a. m. each day. She won't part with her cacti now, because they have meant so much happiness to her in the ten years she has been practicing the hobby. Good luck to you always, Muriel.

Last month, the Henry Shaw Cactus Society celebrated its first half-year of existence. The occasion was marked by a New Year party with sandwiches, cakes, candy and precious coffee provided for all present. Mrs. Otto Haldenwanger was the lucky winner of the attendance prize, which was a neatly designed dish garden of 25 cacti, donated by Zee Young. We missed the few absent members but we know that it was no fault of theirs that prevented them from attending. There are no "deadheads" in this society, I assure you, but all bona fide cactus enthusiasts. If any of you are in town on the second Sunday of the month, won't you come in and sit at one of our meetings?

Agave huebueteca is a new "century plant" from Guatemala recently described by Paul C. Standley and Julian A. Steyermark in Publication 524, Field Museum of Natural History, Chicago, issued January 14, 1943. The authors believe that ultimately their new species may have to be united with one of the Mexican species of the subgenus *Littaea*, but for the present they are unable to refer it satisfactorily to any of the species listed from Mexico. Of interest also are several new desert lilies, belonging to the genera *Nolina* and *Dasyliro*, as reported by Ivan M. Johnston in the Journal of the Arnold Arboretum (24: 90-98, January, 1943). These include *Nolina micrantha*, *Dasyliro heteracanthum*, *D. Stewartii*, and its variety *glauca*. All of them are native to Mexico.

There are some of us who would almost stoop to murder a few taxonomists because they append such long Latin names to our spiny pets, but if you think Latin names are jawbreakers then try to pronounce *Quaubezplacuitlapilli*, the Aztec name for *Cereus* or *Nopalsotscueztaltiquizi*, the name for *Epiphyllum Ackermannii*.

The next 4 pages are the 8th installment of Werdermann's 122 page book "Brasilian und Seine Saulenkakteen"



FIG. 7. A *Lemaireocereus* hedge doing double duty since it also furnishes fruit for the natives.

Mostly About Useful Cacti and Succulents Grown as Hedges

By T. MACDOUGALL

Last February I had returned to the city of Oaxaca after an absence of five years and although it was but a stop over on the way to a projected field trip I took time off to enjoy the old town once more and to renew old acquaintances. This latter included a visit to Prof. Casiano Konzatti, dean of Mexican botanists and one of the kindest men it has been my privilege to meet. To his handicap of isolation is now added that of advanced age, but he carries on his work with the flora of Mexico with unabated enthusiasm. As we admired the fine view

of Cerro de San Felipe from his home, Don Casiano remarked sadly, "suspiro por la montaña." Among the many plants, species *konzattii*, growing in the patio garden, is *Aporocactus konzattii* gotten from the top of his beloved Cerro de San Felipe.

From Oaxaca I now traveled south on the Oaxaca al Pacifica bus line—a rather optimistic title. In two stages, and after five hours over surprisingly passable roads, we reached San Andres Miahuatlan, chief town of the district and an agricultural and handcraft center. Very

durable men's "felt" hats are made here, of wool. In other parts these are often jokingly referred to, from the color and texture resemblance, as "panza de burro" or donkey belly hats. Narrow ribbons worn on the hats are woven of horse hair, of natural colors combined with those dyed red and green. Such exclusive articles of apparel serve as a key to the identity of the towns and tribes of natives who have congregated from far and near to a fiesta or to a large market.

In Miahuatlan I was joined by a Zapotec friend, Cayetano Ortego. "Tano is a traveling merchant and knows all the trails and rancherias for leagues around. Our intention was to walk east by south into a mountainous area then un-

known to me. When we started out early the next day, some life was stirring in the market place, but beyond there the crowing of cocks and song of birds served only to accentuate the peacefulness. For more than two hours we passed through gently rolling farm land. Corn and beans had been harvested and only an odd field of garbanzos and stands of castor-oil remained. But what interested me most along this early part of our trail was the extensive use of cacti and "succulents" to form hedges and boundaries, and it occurred to me that a few pictures of these, together with a story, might interest the "fraternity." On the outskirts of Miahuatlan we pass large hedges of *Pereskia* and *Pereskia*, the former having the long



FIG. 8 (Upper left). Agave used as a fibre plant. FIG. 9 (Upper right). The heart of the same plant furnishes a strong drink. FIG. 10 (Lower left). "Maguey de Javelin" makes an effective barrier. FIG. 11 (Lower right). The naturalized *Aloe vera* seems at home.



FIG. 12. A boundary marker of *Hechtia*.

red fruit and the other having shorter yellow fruit. I do not know of additional uses for *Pereskopsis* except that these hedges support *Hylocereus* in many places and this genus bears one of the favorite "pitahaya" fruits of tropical Mexico.

In the open now, we begin to see hedges of another "Pitahaya," Fig. 7. Oddly enough it is called "Tuna" here. Perhaps it is *Lemaireocereus treleasei*. Again it may not even be of that genus. There seems to be no key to separate even some genera of the Cereanae when not in flower or fruit, and this is unfortunate. No doubt all of the "Organ" cacti have sufficient character to stand out at sight when one has once become familiar with them. Whatever our species may be its fruit is highly esteemed by the natives of Miahuatlan. We next pause to photo the most widely employed hedge plants. It is an

Agave, "Magüey de Cuish" Fig. 8. The leaves provide a general purpose fibre and the "heart" of the plant, at the right stage of growth, Fig. 9, gives an inferior grade of that strong drink of the region, mescal.

Another hedge *Agave* is the "Magüey de Javelin," Fig. 10. It makes a more effective barrier than the other but has fewer uses, however a strong yellow fibre from the leaves is especially good for rope making. About a league from town we pass a rancheria (hamlet) where *Aloe vera*, "Sabila," is growing along the banks of a sunken cart-road, Fig. 11. This species has firmly entrenched itself in the flora of Mexico and also into the native pharmacology. The leaves usually are to be had in native herb stalls and at that "herb pharmacy" the "Botica Vegetal" of the Vera Cruz market place, I always find them. It maybe for its real merit that this



FIG. 13. Typical view in the "Cactus Hedge Country."

new comer has taken a place among the host of "medicinal" plants in use before the time of Columbus.

As we begin to leave the better farm zone, hedges (or boundary markers) of still another genus, *Hechtia*, appear, Fig. 12. I was told that, divested of the thorny leaves this plant is fed to live stock, and in the dry, poor areas where it grows it is no doubt a useful "succulent."

All of the hedges illustrated here are obviously the result of "regimentation" of species found on the site. *Pachycereus marginatus*, so much used to form living fences in southern Mexico, does not appear to be indigenous here.

Our trail now enters increasingly mountainous country; three days later it rose above 11,000 ft. altitude, and finally it brought us to the hot plains and to the town of Tequisistlan. Here we again found modern transportation in the tri-weekly bus to Tehuantepec. Eventually the Pan-American Highway will pass through these two towns and the distance between the cities of Oaxaca and Tehuantepec will then be cut from some 700 miles (by rail or rail-highway combination) to less than 200 miles. The motoring cactologist will find much of interest in this stretch, and the first comers will, almost, be able to drive into monumental plants of undescribed species—especially if they have sampled some of that mescal. But the above statement is hardly an exaggeration. The writer

has photos of more than one "Organ *Cercus*" of this region, that does not match with available published illustrations.

To support this contention of cacti waiting to be described, I may mention two conspicuous species of this area, but which grow nearer the "beaten path." One is the large and abundant *Pereskia konzattii*, the other is the Candy Cactus—*Cactus oaxacensis*, which is brought in by the oxcart load. Both are found near the railway, yet both are comparative newcomers to classified Cactaceae.

Tehuantepec was the immediate goal of both Cayetano and myself. Here, it came to me, I had completed the "direct overland," round trip between Tehuantepec and Oaxaca, after just 13 years. Tano was in time to join with a small group of brothers and fellow merchants journeying to the little Chontal Indian town of Astata. Here would be celebrated the "Segundo Viernes" (second Friday in Lent), the one big day of the year in this little place, and thousands of devotees would be there to worship and also to buy and sell. I had passed through Astata a month before and now I was content to relax in the company of the "good neighbor" Tehuanos and to enjoy the luxury of a good bed, good food, and the personal attention of proprietor Don Conrado, in the little hotel with no "modern improvements."

NEWS ITEMS

K. I. O. CLUB

In lieu of the fact that our very worthy and energetic Reg. Vice-President, Charles Cole, has been a busy and troubled man these days, I told him that I would write and give you the news as concerns the K. I. O. club.

Harold Ranshaw (our busy Vice-President) will be joined in Holy Wedlock with Miss Ernibelle Geer (School Teacher and most accurate Treasurer of our club). When two cactus people marry, that's news. These two young folks are very popular with our club and they are active in many ways furthering education and spreading the study of cacti and succulents to all who are interested.

We are meeting as usual every month and our meetings are very interesting in spite of gas rationing and other activities caused by the war. We are lucky in having a grand Park Board in Cincinnati who furnish us a meeting place at the Krohn Conservatory. Only those who have seen this beautiful place can fully appreciate what this means to our club. We meet in a well heated room adjacent to the cactus wing and right next to the orchid room. You can readily see how the environment places us in the proper mood for some of the finest meetings we have ever had. We use the conservatory whenever it is inconvenient to meet in our members homes.

This club sponsored an interesting exhibit at the Cincinnati Garden Center in the Natural History Museum the week of November 15.

One table of the display contained 35 types of cacti, arranged to show the evolution of the plant from the earliest forms, as the *Pereskia aculeata* which has deciduous leaves and climbs more like a rose than a cactus, to the Giant Saguaro.

Another display showed the development of the *Kalanchoe* type of succulent, and still another table showed various types of Aloes and Haworthias.

Mrs. Frank Seinsheimer, a member of the Cactus Club, decorated the front window with a group of cacti planted in Indian pottery bowls, arranged on a Navajo rug.

The walls were covered with autographed cartoons by Reg Manning and pictures of cacti in color. Most of the plants on exhibition were loaned by members: Light, Cole, Neumann, Combs, Geer, Diehl, Annable, and Schnurr.

I had a beautiful Christmas card from Mr. and Mrs. John Haag of St. Paul, Minnesota, and I look forward to meeting those nice folks again some time in the future, perhaps at the next convention of our Cactus and Succulent Society. Friends and acquaintances I made at the St. Louis Convention shall be cherished always in my heart. Let's have another one soon and the sooner the better. No offense intended Oklahoma members, just a little enthused on this subject is all.

JOSEPH F. SCHNURR.

OAKLAND AFFILIATE

The regular meeting of the Cactus and Other Succulents League was held January 3, at the club room in the home of Mr. Andrews.

The meeting was presided over by our new President, Mrs. Wilson E. Newlon, and brother cactophile, John Schreuder led in the discussion of the Euphorbiae. He gave the highlights of the different groups and his talk was most interesting. There were discussions to have our group exhibit cacti and other succulents at a future date as there will be no spring garden show this year. Our February meeting will be at the home of our President at 981 Miller Avenue, Berkeley.

G. W. VAN DER BUNDT, Cor. Secy.

The Cactus and Succulent Society of Vancouver just sent a fine photograph of their exhibit of 100 cacti and almost as many of the other succulents. From the picture, it is readily seen that this Society understands the culture of these plants since they all seemed to be in the best of growing condition. After the war we will be able to publish some of these interesting photos.

The Long Beach Cactus Club includes a short write-up of "A Plant for This Month" in each issue of their monthly bulletin. For example the following appeared in Vol. 4, No. 1:

REBUTIA MINUSCULA, called by one nurseryman, the Red Crown Cactus, is chosen this month because of the beauty of the flowers and the profusion with which the plant produces bloom.

This is a low growing, globular plant, bright green in color with soft harmless spines, all in all a very satisfactory and attractive plant. The bright red buds form at the ground line in rows around the plant and soon there will be a ring of blooms around the complete plant forming a veritable crown.

The flowers are funnelform and open rather wide and are a brilliant red in color. The plant grows very easily for anyone and does not require much care although it prefers quite a bit of moisture and not too much sun.

If you have never seen this plant in flower you should make it a point to do so soon and I know that then you will acquire one for your own collection.

BILL BERGERI.

The Central Iowa Cactus and Succulent Club has 16 members and is a very active club, meeting the third Saturday in every month. Since gas rationing, and since our club covers a radius of over 30 miles, we have decided those members living in the eastern part of the district meet in Jefferson, with Mrs. A. L. Sutton, vice-president of the club, acting as chairman, and the members living in the western part, meet in Carroll, with myself, president of our club, acting as chairman.

At our last meeting we decided to joint the Iowa Federation of Garden Clubs.

We have some interesting papers chosen for our program, some of which are, "Euphorbias," "Living Stones and Mimicry Plants," a "Lesson on Stapeliae," "Who Collects Cacti and Why," a paper on "Cacti Around the Calendar," and others.

As we are all amateurs, with the exception of Mrs. Sutton, we are learning a great deal and are much interested in succulents.

Our officers are: Mrs. Albert Janssen, President; Mrs. A. L. Sutton, Vice-President; Mrs. Leo Schueller, Secretary-Treasurer; Mrs. Elmwood Sapp, Librarian.

Mrs. ALBERT JANSSEN, Rt. 2, Carroll, Iowa.

VISITORS WELCOME

Mrs. Mary Hester, 700 E 5th St., Colvis, New Mexico.

Mrs. Fred M. Beightol, Freeport, Ill.

WILL HONORS NEVER CEASE?

Our popular member Jack Whitehead of University of California Botanical Gardens has recently been elected First Vice-President of the California Botanical Society.

A NEW BOOK!

Recently we received an order for "1 Cats Eye for the Amateur." Evidently the word "cacti" meant nothing to one of our pinch-hitting war-time secretaries!

Wouldn't you like to order a copy of Blank's Catalogue for 10c as advertised in "The Cosmopolitan" of February, 1893?

It is reported that Dr. R. W. Poindexter has enlarged his cactus acreage to include pumpkins and other "fruits" for duration!

A St. Louis member wants to know, "Why their succulents lost their color and turn green." Who has found the proper type of electric illumination that will help our eastern friend to retain that color in succulents that only Californians know? Then why is it that the cold weather brings out the colorations in Echeverias, etc.? Have we no illuminating experts?

Thor Bock was reported in England at Christmas time. We wonder if he is collecting *native* cacti now at the base of the pyramids?

Does anyone know what happened to our old friends James West, Eric Walther, Edgar Baxter, R. E. Willis, Dr. Boissevain, Helia Bravo. Old names in old JOURNALS but never forgotten friends.

Why is it that in most cases when a group affiliates and subscribes to the JOURNAL in the name of the affiliate, our national membership decreases? One of the sins of group bargaining! Also we have noted that where there is a live cactus club, the interest in these plants lasts much longer than in localities where there are no organizations.

Your Editor reports that during the months of December and January he entered five times as many new members in the Society as in any other month during the last five years. There may be a reason why the JOURNAL is the only cactus magazine that has published regularly for the last fifteen years and is the only one now being published.

This is the only time since the beginning of the JOURNAL that we have members in every state of the Union. Is the interest in cactus dying?

Please renew your JOURNAL direct and not through a magazine agency. We will not raise our JOURNAL price, as have most magazines, but we do need your cooperation. England and Australia now permit subscribers to send funds from those countries. That proves that the JOURNAL is a necessity.

If you would like a celluloid 6-inch ruler as published on page 110 of the last BULLETIN, send a dime to this office. Only a few available. Also a few copies of the November Sunset as mentioned in the January JOURNAL mailed for 20c.

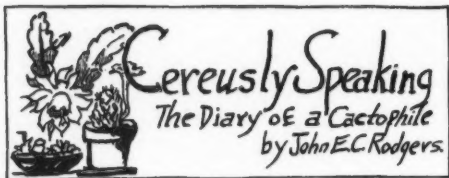
Society members sent many original and thoughtful Christmas cards to this office. Many of the cards used photos of flowering cacti and were outstanding in beauty.

Pasadena can boast of the world's record for succulent conditions. Recently it recorded over 21 inches of rain for one storm. Sunny California!

The reason why cactus collectors are short lived in Texas is summed up by A. C. Tracy (who is stationed at Orange) as follows:

The general opinion seemed to be that the majority of people figured anything with spines was a cactus and there wasn't any great difference in them except for round ones, flat ones and columnar ones. This part of Texas is pretty wet for many cacti and I gather that many people get discouraged because their cacti die while so many other types of semi-tropical exotics grow fairly well or freeze back in the winter but come up again. The cacti rot and die off.

William J. Hohman, 47 Franklin St., Salamanca, N. Y., wants to contact another amateur member in his locality.



February 1. Read an article today about color and its application (getting ready for a College Club paper) and this statement was made: "Lime sulphur spray gives off a blue light. This blue light is deadly to insects." The author goes so far as to suggest blue paint for kitchen walls to keep flies away. Too, magenta light stimulates vocal chords and loosens the tongue. Now, there is a suggestion for our "silent" cactophiles. Why do they let a few of us "spout off" all the time.

February 3. With Houghton's conspectus in the "Cactus Book" I checked over my plants and found I had thirty or forty of the 105 plants listed which need lime or chalk for good health. Gave it to 'em. That book is invaluable to me as cactus culture hints filter into our literature the slowest of all information. Charles Mower brought me 10 pounds of dolomite dust (calcium and magnesium carbonate) which I can use on my lime loving plants. Magnesium is important to humans for growth, according to Sandy's diet guide. Maybe for plants, too, who knows? The Mower's have seen the wonders of the West from the bird's angle. Their collection started with plants they purchased while on a plane trip to sunny California two years ago. They now have a window garden of 100 plants.

February 4. The Lorain gang finished their part of the February "round robin" letter which is to be the alternate monthly communication to take the place of a meeting (as if that could ever be) of our Midwest society. The March meeting is to be at our house.

February 5. Have a letter from Professor Otto LaPorte, Ann Arbor, Michigan. Collects Euphorbiae, you know. His troubles are our own—continued cold weather and rationed fuel oil. His solution is tacking sheets of transparent plastic as an insulation to the inside bars of his greenhouse—seems worth passing on. Cel-O-Glass is used hereabouts because it not only traps the heat, but admits ultra violet light as well. If used wisely, it will last five years or more. The E. I. Dupont deNemours Co. Cel-O-Glass Section, Organic Chemicals Dept., Wilmington, Del., suggests several uses for this product. A greenhouse using it in place of glass is one of them. LaPorte is using a battery of light bulbs for additional heat. Expensive, but as he says, "What is a man to do?"

February 6. Letter from Mrs. A. L. Sutton, Jefferson, Iowa. It came addressed to me as "Winchell of Cactophiles" as directed by Scott Haselton in the January JOURNAL. (Otto Laporte called me that last summer and in a weak moment I told Scott). We remembered Mrs. Sutton from the '41 convention. The old urge to get new plants came when I saw her catalogue list.

February 7. Looked over my January, 1942, CEREUSLY SPEAKING. Found my injunctions about Euphorbias. To go further, they need plenty of light and enough water to protect the roots from drying out. Otherwise the fine roots die and then, even if watering is resumed, there is no way for the plant to absorb water. The vascular bundles dry up and the plant stops growing. This "dry rot" creeps up the inside of the stem and is not noticed until the plant is usually beyond saving. Two of my Stapelias were cured of

the "black fungus" spots on the stems by an aqueous Semesan spray. I sprayed them last winter and the disease has not returned. Directions come with the commercial package of Semesan, but I mix such a small amount. I use only $\frac{1}{4}$ teaspoonful of Semesan to 1 cup warm water. I mix and shake this thoroughly in a pint jar and use as any other spray mixture. I use 1 scant teaspoonful of Semesan to 1 cup of sand to dip cuttings in before putting in rooting sand, and my cuttings do not decay while rooting.

February 9. Jim Carment and I were elected to represent our Society at one of the regular lectures scheduled by the Garden Center of Cleveland. We performed tonight, Jim showing his Kodachrome film and I interpreted for him. Such artistic pictures. Wish I could describe them. From local collections and in full color. Gorgeous Epiphyllums, *Cereus Peruvianus*, *Hylocereus undatus*, and succulents galore.

February 15. *Jatropha podriga* has grown an inch in the last year. Has lost its thin leaves now and looks abandoned. As soon as it shows new growth, I shall give it water again and it will plump up.

February 18. Laid down a barrage of "Black Leaf 40" spray (1 teaspoonful to 1 gallon of water) over my entire collection. A contact spray is the answer for sucking pests that infest these plants. Use it once a month. The spine bug sacks that I soak with the spray, contain the dead bugs and dried up eggs. Cochineal, thrip, and mealy bugs are all controlled in this manner. However, I keep three "guns" loaded at all times. The glass bowl type spray guns, they are, purchased at the dime emporium—20c, I think. On heavily infected plants I use the "Sheps" bought at Cresges here in Lorain. (However, they have none at the present time.) "Volck" I use for scale, and "the Black Leaf 40" for a general insecticide. Perhaps a more conscientious individual might try to locate sow bugs, slugs, and other desperados at night. But I just rush out, fire my heater, check the thermometers, re-adjust the thermostat and drafts as needed, glimpse sleepily at the plants and hurry back to bed.

February 20. Don't paint your shelves, walls, benches, etc., white if you don't have good eyesight. Those pesky spine and mealy bugs seem to realize their protective coloration and park on the white surfaces. Examined plants and benches for living pests after the February 18 spraying. Brushed out benches and sprayed with copper sulphate solution. Black fungus which grows on plants, lives as spores on benches. Copper sulphate is inexpensive. Mix it as I mentioned last month, 1 ounce to 10 gallons of water. Here again Semesan is excellent in spray solution, but it costs too much for big jobs. Stirred up the gravel about the seedlings to discourage green algae, a by-product from Lake Erie water I use. Being Sunday, Sandy would not let me use her oven to sterilize sand and soil. So I used an old crockery Dutch-oven which holds about 12 quarts. Set it on a low fire on hot plate in the basement. Moistened the sand and soil and let it heat slowly to a good steam for 3 or 4 hours. Finished three batches. If I could have used the oven I would set the thermostat at 257 degrees. Set Echinopsis out into greenhouse benches and brought Epiphyllums up from basement to potting room off greenhouse where they will get used to a little more light before being moved into the greenhouse proper.

February 24. "My cousin's night blooming cereus is drying back at tips. What can she do?" was a telephone query of a friend tonight. I luckily remembered the patient. It is an *Epiphyllum oxypetalum* and my diagnosis is "undernourished." Nitrogen starvation. Recommended household ammonia, $\frac{1}{2}$ tablespoon to 1 cup of water given with the generous weekly watering. Repeat in three weeks. Ammonia is not as messy

as some other things my friends recommend. Same treatment good for African violets.

February 28. Another dark month, but a little more sunshine than the recorded 13 hours in January when Old Sol showed his face. My original Fraileas are now grandparents and are in a shallow pottery dish 12 inches across. They are described as "Cleistogamous" which according to the dictionary means "having usually in addition to ordinary flowers, small flowers which never open and are self pollinating as in the violet." I have seen Frailea flowers wide open several times. Each time it was around high noon and they were open not much more than two hours. I managed to get a drawing of one wide open flower, yellow and very pretty.

Culture Cues for March

1. Make cuttings of plants for gifts and exchange.
2. Check for ants (start in greenhouse about this time of year).
3. Check plants that seem at a standstill. Sometimes, just knocking the plant and soil from the pot, loosening it up and returning all to the pot is enough to start growth. Radical cultivation in the realm of pot culture!
4. Cut off spent Epiphyllum stems and give liquid manure (pg. 60 CACTI FOR THE AMATEUR).
5. Make a thick roll of soft cleaning rags around the business end of a mop stick and wipe off inside of glasshouse, so that the sunshine we do get can come through.
6. If you have anything left after Income Taxes are paid, look over catalogues (and price lists) and check species to add to collection. Want a few good specimen plants. (If bothered by the times and you just can't check it off to morale building, invest in a few more Defense stamps earmarked cacti.)
7. Prepare pots or pans of soil with good drainage and plant some cactus seeds. Every cactus fancier should raise a few plants from seed each year.
8. Get Harrisias into vigorous growth by end of month if you expect blooms.
9. Give more water to Aloes, Gasterias, and Euphorbias if you have sunny windows. Respiration is heavier in sunshine, you know.
10. Special attention should be given the following plants which, according to record, have bloomed for me in March in previous years:

Cacti: *Schlumbergera gaertneri*, *Wilcoxia poselgerii*, *Mam. McDougallii*, *Aporocactus flagelliformis*, *Rhipsalis cereuscula*, *Mam. fragilis*, *Wilcoxia Schmollii*, *Mam. hyderi*, *Echinocereus perbellus*, *Cereus Mallisonii*, *Mam. Wildii*, *Echinocereus pectinatus*, *Rhipsalis Houletiana*, *Mam. bocasana*, *Mam. praelii*, *Mam. Kunzeana*, *Mam. phymathele*. Former February "bloomers" that look like they will bloom in March this year: *Astrophytum asterias*, *Echinocereus Knipplianus* and although there were a few blossoms on *gaertneri* this month, many more buds are setting that will give March bloom. I will list only cacti, as I have a complete record of cacti blooming dates since 1934. I have not compiled succulent records in this manner, but could from my line-a-day diary, should the need arise.

EDITOR'S NOTE: On page 7 in the last issue, please change "Culture Cues for January" to "Culture Cues for February." S. E. H.

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<i>Pronouncing Glossary</i> —Marshall, Woods.....	3.85
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<i>Cacti</i> —Borg	6.60

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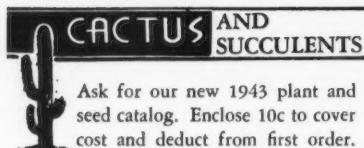
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